

REMARKS

Reconsideration of the application, as amended, is respectfully requested.

In the Action, the Examiner rejects claims 1-25 under 35 U.S.C. §112, first paragraph. Applicant respectfully disagrees with this rejection and asserts that the claims are fully supported by the specification. However, in the interest of advancing the prosecution of the subject application, the words of claims 1, 19 and 25 objected to by the Examiner have been deleted. Accordingly, reconsideration and removal of this rejection is warranted.

The Examiner then rejects claims 1-5, 9-11 and 13-25 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,851,409 to Schaeffer et al. (Schaeffer et al.) in view of U.S. Patent 6,049,978 to Arnold (Arnold). The Examiner further rejects dependent claims 6 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Schaeffer et al. in view of Arnold, and further in view of U.S. Patent No. 6,461,746 to Darolia et al. (Darolia et al.).

The above rejections are respectfully disagreed with, and are traversed below.

The processing steps of Applicant's independent claims 1, 19 and 25 have been further clarified as supported by the specification at, for example, pages 10-12 and pages 14-17.

It is respectfully asserted that the Examiner's proposed combination of the cited references fails to teach or suggest all of the limitations recited in amended independent claims 1, 19 and 25. At the very least, this proposed combination fails to teach or suggest Applicant's particularly claimed weight measurement employed to restore adjacent airfoil to airfoil throat distances without incurring a weight penalty.

Schaeffer et al. disclose a method for removing an environmental coating on an article. As disclosed at col. 2, lines 36-38, an object of the method described therein is to limit the attack of the substrate underlying the coating and therefore avoid damage to the substrate (emphasis added). Schaeffer et al. particularly teach peening the environmental coating to produce cracks in the diffusion coating (col. 2, lines 47-50). Schaeffer et al. further disclose that according to its method, the likelihood of the substrate being subjected to attack by the

stripping solution is reduced considerably (col. 3, lines 11-13, emphasis added).

The Examiner states at page 4 of the Action that this reference “inherently removes a portion of the base metal substrate ...” Applicant respectfully disagrees and points out that, as described above, a goal of Schaeffer et al.’s process is not to remove or destroy the underlying base metal substrate. Accordingly, there is not motivation in Schaeffer et al. to even arrive at any of Applicant’s processing steps, including the detailed weight measurement, to restore adjacent airfoil to airfoil throat distance. Schaeffer et al. are directed to solving a different problem than that solved by the subject claims. Accordingly, the skilled artisan would not be motivated to even look to Schaeffer et al. for guidance.

The Examiner recognizes that Schaeffer et al. fail to disclose “restoring adjacent airfoil-to-airfoil throat distance to about the distance preceding the engine run using the ‘ $t+\Delta t+\Delta x$ ’ analysis required by Applicant.” The Examiner further recognizes that neither the Schaeffer et al. nor the Arnold reference discloses making any measures (Action, page 5). However, the Examiner contends that such measurements are “inherent.” Applicant respectfully disagrees.

As described above, Schaeffer et al.’s process is designed so that attack of the base metal substrate is “reduced considerably.” There is no disclosure or suggestion of, for example, completely removing any thermal barrier coating system, nor weighing a component at all. Nor is there is any disclosure or suggestion of a restoration process such that a weight penalty is not incurred. Schaeffer et al. are merely concerned with effectively removing a diffusion coating by using a peening process that creates cracks in the diffusion coating.

Similarly, Arnold does not disclose nor suggest all of the features of the claimed invention, whether viewed alone or in combination with Schaeffer et al. In particular, Arnold determines dimensional differences between pre-repaired dimensions of an airfoil part and desired post-repair dimensions by measuring the distance from “at least one of the cordal and length dimensions of the airfoil part.” (col. 8, lines 8-12, emphasis). Arnold plasma sprays a material to build up a cordal dimension of the part to a thickness greater than the thickness of the original cordal dimension. The part is subsequently machined to the original or desired dimension (co. 8, lines 35-51).

There is no disclosure or suggestion of, for example, weighing a component as claimed by Applicant. Nor is there is any disclosure or suggestion of a restoration process such that a weight penalty is not incurred.

Moreover, the Examiner is respectfully reminded that inherency requires a feature to be necessarily present. This is clearly not the case and thus reconsideration and withdrawal of the rejections based upon Schaefer et al. and Arnold is warranted.

Applicant respectfully asserts that independent claims 1, 19 and 25 are in condition for allowance, and thus remaining claims 2, 4-18, 20-24 and 26 are also allowable in view of their dependency from an allowable independent claim. Accordingly, a notice of allowance is respectfully requested.

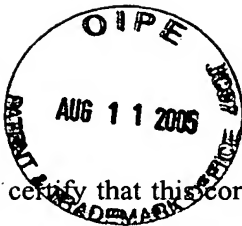
According to currently recommended Patent Office policy, the Examiner is requested to contact the undersigned at the telephone number provided below in the event that a telephone discussion will advance the prosecution of this application. An early and favorable action is earnestly solicited.

No fees are believed due with this amendment. However, should the undersigned attorney be mistaken regarding whether any fees are due, then please adjust deposit account no.: 50-1924, accordingly.

Respectfully submitted,



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